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HEWLETT-PACKARD COMPANY	MENBERU, BENIYAM
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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/835,163	HUDSON ET AL.
	Examiner	Art Unit	
	Beniyam Menberu	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _04 February 2005_.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-21_ is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _1-21_ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Arguments

1.   Applicant's arguments, see pages 10-12 of Remarks, filed February 4, 2005, with

respect to the rejection(s)of claim(s) 1, 15, 18, and 19 under U.S. Patent No. 6549654

to Kumada have been fully considered and are persuasive. Therefore, the rejection has

been withdrawn. However, upon further consideration, a new ground(s) of rejection is

made in view of U.S. Patent No. 5668636 to Beach et al.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1, 10, 15, 16, 17, 18, 19, 20, and 21 are rejected under 35 U.S.C. 103(a)

as being unpatentable over U.S. Patent No. 6549654 to Kumada in view of U.S. Patent

No. 5668636 to Beach et al.

Regarding claims 1, 15, 18, and 19, Kumada disclose a system, method and

program (column 15, lines 52-56) for selecting a color map for use in printing a

document, comprising: obtaining color space information about the document (Figure

25, reference S1101; column 10, lines 25-28). However Kumada does not disclose

obtaining at least two color maps and determining which of the at least two color maps

will result in a printed document that is more consistent with the color space information and a desired rendering intent.

Beach et al disclose obtaining at least two color maps and determining which of the at least two color maps will result in a printed document that is more consistent with the color space information and a desired rendering intent (column 4, lines 4-27; column 6, lines 8-12, lines 29-35).

Regarding claim 10, Kumada in view of Beach et al discloses a method of claim 1, additionally comprising: providing a preferences interface to an author, whereby the author may indicate a preferred rendering intent to constrain the determining step (Kumada: column 9, lines 64-67; column 10, lines 1-3; Figure 23).

Regarding claim 16, Kumada in view of Beach et al teaches all the limitations of claim 15. Further Beach et al discloses a method of claim 15, additionally comprising providing a library of color maps from which to select for the evaluating step (Beach et al: column 4, lines 11-21).

Regarding claims 17 and 20, Kumada in view of Beach et al teaches all the limitations of claim 15 and 19 respectively. Further Kumada discloses a method, additionally comprising providing an interface to determine the desired rendering intent (Kumada: column 9, lines 64-67; column 10, lines 1-3).

Regarding claim 21, Kumada in view of Beach et al teaches all the limitations of claim 19 respectively. Further Beach et al discloses a system, additionally comprising: a gamut management module (Beach et al: Figure 1, reference 23, 25; column 3, lines

38-56), in communication with the evaluation module (Beach et al: column 4, lines 37-53), to organize a gamut library (Beach et al: column 4, lines 11-21).

4.   Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6549654 to Kumada in view of U.S. Patent No. 5668636 to Beach et al further in view of U.S. Patent No 5508826 to Lloyd et al.

Regarding claim 2, Kumada in view of Beach et al teaches all the limitations of claim 1. However Kumada in view of Beach et al does not disclose a method of claim 1, wherein the at least two color maps are derived from color information obtained by sensors in a print path of a printer.

Lloyd et al disclose a method, wherein the at least two color maps are derived from color information obtained by sensors in a print path of a printer (column 6, lines 9-16).

Kumada, Beach et al, and Lloyd et al are combinable because they are in the similar problem area of color printing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the method of using sensor as taught by Lloyd et al in the system of Kumada in view of Beach et al to implement a precise color printing system.

The motivation to combine the reference is clear because Lloyd et al teaches that the sensors are used for self-calibration of the printing system (column 6, lines 9-12).

5.   Claims 3, 4, 5, 6 and 7 rejected under 35 U.S.C. 103(a) as being unpatentable

over U.S. Patent No. 6549654 to Kumada in view of U.S. Patent No. 5668636 to Beach

et al further in view of U.S. Patent No. 6268930 to Ohta et al.

Regarding claim 3, Kumada in view of Beach et al teaches all the limitations of

claim 1. However Kumada in view of Beach et al does not disclose a method of claim 1,

wherein the determining step comprises: analyzing a boundary of each color map; and

performing a best-fit analysis with respect to the color space information.

Ohta et al discloses a method of claim 1, wherein the determining step

comprises: analyzing a boundary of each color map (column 5, lines 9-20); and

performing a best-fit analysis with respect to the color space information (Ohta et al

disclose a system that determines whether input image data is within gamut of output

device (column 4, lines 50-60).).

Kumada, Beach et al, and Ohta et al are combinable because they are in the

similar problem area of color printing.

At the time of the invention, it would have been obvious to a person of ordinary

skill in the art to combine the method of best-fit analysis as taught by Ohta et al with the

system of Kumada in view of Beach et al to implement color printing system which

selects the optimum printer based on input color document.

The motivation to combine the reference is clear because by using the system of

Ohta et al, the optimum printer which covers the gamut of the color document can be

utilized for printing.

Regarding claim 4, Kumada in view of Beach et al further in view of Ohta et al teach all the limitations of claim 3. Further Ohta et al disclose a method of claim 3, wherein best-fit analysis comprises mean and maximum difference calculations on boundaries of a color space consistent with the color space information and a color space associated with each of the at least two color maps (column 17, lines 5-13; column 19, lines 15-38; Figure 26-27).

Regarding claim 5, Kumada in view of Beach et al further in view of Ohta et al teach all the limitations of claim 3. Further Ohta et al disclose a method of claim 3, wherein best-fit analysis is based on calculating and comparing volumes of a color space associated with the document and of a color space associated with each of the color maps (Ohta et al disclose the use of polyhedron to determine whether image signals are within gamut of output device where the polyhedron is a 3-dimensional figure representing volume of the gamut of output device (column 5, lines 9-21)).

Regarding claim 6, Kumada in view of Beach et al further in view of Ohta et al teach all the limitations of claim 3. Further Ohta et al disclose a method of claim 3, wherein best-fit analysis is based on determining a percentage of colors used by the document contained within each of the at least two color maps (Ohta et al disclose a counting method for counting pixels that are outside gamut of printing device (column 4, lines 56-61). The count value can be used to determine percentage of pixels outside gamut of printing device.).

Regarding claim 7, Kumada in view of Beach et al further in view of Ohta et al teach all the limitations of claim 3. Further Ohta et al disclose a method of claim 3,

wherein best-fit analysis is based on determining the percentage of the area of the

document associated with colors contained within each of the color maps (Ohta et al

disclose a counting method for counting pixels that are outside gamut of printing device

(column 4, lines 56-61). Since pixels are representative of an area of document image

space, knowing number of pixels outside gamut of printing device can give indication of

area coverage of document image space within gamut of printing device.).

6.   Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 6549654 to Kumada in view of U.S. Patent No. 5668636 to Beach et al

further in view of U.S. Patent No. 6646762 to Balasubramanian et al.

        Regarding claim 8, Kumada in view of Beach et al teaches all the limitations of

claim 1. However Kumada in view of Beach et al does not disclose a method of claim 1,

additionally comprising: generating a custom gamut mapping.

        Balasubramanian et al discloses a method for generating a custom gamut

mapping (Figure 6, reference G1; column 5, lines 33-36).

        Kumada, Beach et al, and Balasubramanian et al are combinable because they

are in the similar problem area of color printing.

        At the time of the invention, it would have been obvious to a person of ordinary

skill in the art to combine the gamut mapping function of Balasubramanian et al in the

system of Kumada in view of Beach et al to perform gamut mapping for out of gamut

colors.

The motivation to combine the reference is clear because if colors are out of range for a printer gamut it is necessary to perform mapping to bring the colors within range of the printer's gamut.

7.   Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6549654 to Kumada in view of U.S. Patent No. 5668636 to Beach et al further in view of U.S. Patent No. 6757071 to Goodman et al.

Regarding claim 9, Kumada in view of Beach et al teaches all the limitations of claim 1. However, Kumada in view of Beach et al does not disclose a method of claim 1, additionally comprising: previewing an approximation of a printed appearance of the document based on at least one of the at least two color maps.

Goodman et al disclose a method of claim 1, additionally comprising: previewing an approximation of a printed appearance of the document based on at least one of the at least two color maps (column 4, lines 49-54).

Kumada, Beach et al, and Goodman et al are combinable because they are in the similar problem area of color printing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the preview method of Goodman et al with the color printing method taught by Kumada in view of Beach et al to implement a method for previewing color documents before printing.

The motivation to combine the reference is clear because it is convenient to have a method for previewing a document before it is printed to avoid unnecessary printing.

8.   Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable

over U.S. Patent No. 6549654 to Kumada in view of U.S. Patent No. 5668636 to Beach

et al further in view of U.S. Patent No. 5806081 to Swen et al.

        Regarding claim 11, Kumada in view of Beach et al teaches all the limitations of

claim 1. However Kumada in view of Beach et al does not disclose a method of claim 1,

wherein the desired rendering intent is based on an absolute colorimetric.

        Swen et al disclose a method of claim 1, wherein the desired rendering intent is

based on an absolute colorimetric (column 8, lines 52-54).

        Kumada, Beach et al, and Swen et al are combinable because they are in the

similar problem area of color printing.

        At the time of the invention, it would have been obvious to a person of ordinary

skill in the art to combine the option of having a colorimetic rendering intent as taught by

Swen et al into they system of Kumada in view of Beach et al to implement a versatile

color printing system.

        The motivation to combine the reference is clear because it is convenient for

the user to have option on how to present a color document at an output device such as

a printer.

        Regarding claim 12, Kumada in view of Beach et al teaches all the limitations of

claim 1. Further Swen et al disclose a method where in desired the rendering intent is

based on a perceptual rendering intent (column 8, lines 52-54).

9.   Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6549654 to Kumada in view of U.S. Patent No. 5668636 to Beach et al further in view of U.S. Patent No. 6693718 to Takaoka.

Regarding claim 13, Kumada in view of Beach et al teaches all the limitations of claim 1. However Kumada in view of Beach et al does not disclose a method of claim 1, additionally comprising locating the at least two color maps on a print server.

Takaoka discloses a method of claim 1, additionally comprising locating the at least two color maps on a print server (column 9, lines 16-20, lines 24-27; Figure 9).

Takaoka and Kumada in view of Beach et al are combinable because they are in the similar problem area of color printing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the method of providing print profiles on servers as taught by Takaoka into the system of Kumada in view of Beach et al to provide for color printing over a network.

The motivation to combine the reference is clear because Takaoka teaches to use a server to maintain the device profiles due to changes in the device characteristics (column 9, lines 14-19).

10.   Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6549654 to Kumada in view of U.S. Patent No. 5668636 to Beach et al further in view of U.S. Patent No. 6633400 to Sasaki et al.

Regarding claim 14, Kumada in view of Beach et al teaches all the limitations of claim 1. However Kumada in view of Beach et al does not disclose a method of claim 1, additionally comprising locating the at least two color maps on individual printers.

Sasaki et al disclose a method of claim 1, additionally comprising locating the at least two color maps on individual printers (column 8, lines 20-27).

Kumada, Beach et al, and Sasaki et al are combinable because they are in the similar problem area of color printing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the property data storing method (column 8, lines 20-22) of Sasaki et al into the system of Kumada in view of Beach et al to store print profiles on printers.

The motivation to combine the reference is clear because if a network printer is to be used and the printer is far away from the server, print profile changes can be made locally to the printer instead of at where the server is located.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beniyam Menberu whose telephone number is (571) 272-7465. The examiner can normally be reached on 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached on (571) 272-7471. The fax phone

number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is (571) 272-2600. The group receptionist number for TC 2600 is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov/>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

Benyam Menberu

06/25/2005